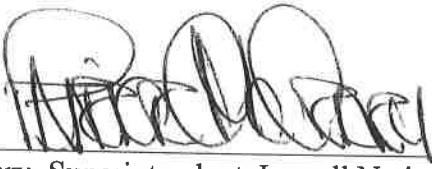
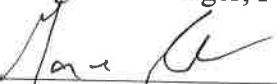


**General Management Plan
Addendum
for
Lowell National Historical Park
Lowell, Massachusetts**

United States Department of Interior
National Park Service
Northeast Region

Recommended:  Date: 12/19/02
Patrick C. McCrary, Superintendent, Lowell National Historical Park

Concurred: Sarah Peskin Date: 1/8/03
Sarah Peskin, Program Manager, Planning & Legislation, Boston Support Office

Approved:  Date: 1/8/03
Marie Rust, Regional Director, Northeast Region

Synopsis

This addendum provides clarification on the role and responsibilities of the Lowell National Historical Park in the absence of the former Lowell Historic Preservation Commission and formally incorporates into the Park's GMP, the Preservation Commission's Preservation Plan and Amendment. These documents, mandated under the Park's enabling legislation, outline plans for the preservation, restoration, management and maintenance of properties in the Preservation District; describe the development agenda for the Canalway, park transportation system, and other mandated park development projects; and outlines programs to promote cultural expression in Lowell.

No new programs not already contemplated in the Park's GMP or in the Commission's Preservation Plan and Amendment are proposed.

I. Background/Legislative History

Public Law 95-290, enacted in 1978, established the Lowell National Historical Park to preserve and interpret the nationally significant historical and cultural sites, structures, and districts in Lowell, Massachusetts. That same law established the Lowell Historic Preservation Commission for a ten-year term to complement and coordinate the efforts of the LNHP and various other state, local and private entities in developing and managing the historic and cultural resources of Lowell.

Public Law 100-134, enacted in 1987 extended the Commission for an additional seven years, and increased the authorization levels of the establishing Act. The Commission was reauthorized for the primary purpose of carrying out the Canalway Plan, providing public access to Lowell's 5.6-mile historic power canal system, a National Historic Engineering Landmark, and for the purpose of developing a folklife program to document and present Lowell's cultural heritage.

In 1994, H.R. 4448 was filed in Congress by Representative Martin Meehan (5th Congressional District - Massachusetts). The bill proposed several changes in the establishing Act for the purposes of extending the Commission and increasing authorization levels for the Park, as well as for facilitating the transfer of the Commission's authorities to the Park. The bill called for the extension of the Commission for an additional five years and a \$10.33 million increase in the Commission's development authorization. In addition, it directed the National Park Service to assume all responsibilities for loan and grant agreements previously ascribed to the Commission, and authorized any revenues or assets acquired accordingly to be used for park purposes. A provision in the bill also proposed to correct defects in the 1978 law by requiring Lowell Development and Financial Corporation to repay to the Secretary of the Treasury loans and interest from the low-interest loan fund set up in 1978, "except for any losses incurred after all reasonable efforts at collection had been completed."

H.R. 4448 passed the House on September 26, 1995, but died on the floor of the U.S. Senate due to inaction on the last day of the 103rd Congress. This bill was widely supported and according to Senator Edward Kennedy was not blocked on its merits. As a result of the non-passage of this bill, the Lowell Historic Preservation Commission was terminated on June 5, 1995.

Legislation was redrafted in 1995 to address only housekeeping issues. From 1995 to 2000, the LNHP staff worked closely with the Solicitors Office, Congressman Martin T. Meehan's Office, NPS WASO Legislative Affairs Staff, and the Lowell Development & Financial Corp. (LDFC) to move the legislative proposal forward. The major issue requiring legislation related to liability for loan losses under the Preservation Loan Program. After repeated efforts, the Solicitor of the Interior Department concurred on December 16, 1999 with the Lowell Park position that does not make the LDFC a guarantor of each loan made. This achievement caused NPS Legislative Division to urge that the remaining issues – considered to be housekeeping issues – be resolved administratively without further legislation through a Delegation of Authority.

On January 19, 2001, Assistant Secretary Smith signed off on a revision to the Departmental Manual 245 DM 1 (22) delegating to the Director, National Park Service, all of the authorities delegated to the Assistant Secretary, Fish and Wildlife and Parks, in 209 DM 6.8 to administer the Lowell Historic Preservation District (Public Law 95-290). A subsequent memorandum dated March 9, 2001, from the Acting Director, National Park Service provides for the delegation of authority for administration of the Preservation District to the Regional Director, Northeast Region.

Authorities Provided to Park in Delegation

National Register District

A longstanding goal of the Park has been to assure that portions of the Preservation District not already designated as National Register Districts be added to the National Register in order to assist private owners in accessing the Federal Investment Tax Credits for Historic Preservation. The Delegation of Authority 245 DM 1 (22), delegates to the Director of the National Park Service, the Secretary's authority to carry out the provisions of the Act of June 5, 1978, 16 U.S.C. 410cc relating to the administration of the Lowell Historic Preservation District. By virtue of this new designation, the Preservation District now meets the procedural requirements (it is an administrative unit of the NPS) for listing of properties on the National Register as set forth in 36 CFR Chapter 1, Section 60.1. Preservation District properties are considered officially listed on the National Register as of January 19, 2001.

Preservation Loan Program

The Park's enabling legislation provided for a preservation loan program to the year 2018, but each loan required Commission approval. Over \$1M in loan funds are available in the accounts of the Lowell Development & Financial Corporation but prior to the Delegation of Authority could not be accessed by the Park due to lack of signature authority. The Delegation of Authority now allows new loans to be made out of available LHPC Preservation Loan funds with the approval of the Superintendent of the Lowell National Historical Park.

Mission Statement

Lowell National Historical Park preserves and interprets the nationally significant historic and cultural sites, structures and districts in Lowell, Massachusetts, that represent the most significant planned industrial city in the United States and symbolize, in physical form, the Industrial Revolution. The park tells the human story of the Industrial Revolution and the changing role of technology in a 19th and 20th century setting. The cultural heritage of many of the ethnic groups that immigrated to the U.S. during the 19th and early 20th century, and which continues today, is still preserved in Lowell's neighborhoods. The park provides a vehicle for economic progress in the community, encouraging creative and cooperative preservation and interpretive programs.

II. Boundaries/Ownership

The Lowell National Historical Park enabling legislation provided for the creation of the 127-acre Lowell National Historical Park and the establishment an adjacent and overlapping 583 acre Lowell Historic Preservation District which was to be administered by the Secretary and by the Commission.

The following boundary revisions were subsequently authorized:

- The Lowell National Historical Park boundary was revised June 1980 to include an additional 3.08 acres along the Western Canal at 220 Aiken Street to provide for a Park maintenance facility.
- The Lowell National Historical Park boundary further revised March 1987 to include an additional 48,000 sq. ft. consisting of 2400 linear feet of rail right-of-way.
- October 1989, the boundaries of the Lowell National Historical Park and Lowell Historic Preservation District were revised to include additional tracts consisting of .82 and 11.43 acres respectively.

The Lowell Park boundary now includes a total of 141-acres.

Although the Delegation of Authority provides for the transfer of authorities of the Commission to the Park for administration of the Preservation District it in no way affects the boundaries of the Park and Preservation District as established in the enabling legislation and subsequent minor boundary changes. No new changes are currently proposed to the Park and Preservation District boundaries.

III. Partnerships

Unlike most parks within the NPS system, the LNHP was mandated through its enabling legislation to be a vital and contributing part of the Lowell community accomplishing its mission through active public/private partnerships. Innovative partnerships at Lowell have resulted in the rehabilitation of nearly 300 nationally significant historic structures and in the development of nationally acclaimed projects such as the Tsongas Industrial History Center and Lowell Folk Festival. The park currently manages more than twenty-five formal cooperative agreements and an additional twenty partnerships. These partnerships enable the Park to reach more visitors and area residents with a wider range of preservation, educational and cultural programs than it could support on its own.

The former LHPC provided the primary bridge between park agencies and the community by implementing aspects of the legislation that differed from the traditional National Park Service policies. In the absence of the LHPC, the LNHP has had to assume a more active role in developing and enhancing community partnerships. Recent Park partnership initiatives include the creation of a new position, Community Cultural Programs Coordinator, to coordinate the development of community programs and exhibits for the Mogan Cultural Center. This initiative will help strengthen the Park's ties with the city's diverse community groups and enhance opportunities for interpretation of Lowell's ethnic diversity and history.

The Park has also played an active role recently in the creation of the Lowell Heritage Partnership, a coalition of Lowell nonprofit organizations that have joined forces to proactively address historic preservation, urban design and environmental protection issues in Lowell. The mission of the Lowell Heritage Partnership is to promote a high quality of life in Lowell that is built on the community's record of innovation and success in the areas of historic and cultural preservation, environmental enhancement, urban design, and neighborhood revitalization.

Park architects continue to play a major role in the City's design review program assuring the highest quality preservation work on private projects in the Preservation District. In addition, Park staff have played a key role in the City's efforts to produce new master plans for three historic areas and to develop complementary tourism facilities and museums in a quest to establish Lowell as a 'destination city'.

IV. Legislative Mandates

The Park was mandated in its legislation to preserve and interpret certain nationally significant historical and cultural sites, structures, and districts, which relate to the Park's principal interpretive theme: the American Industrial Revolution. Lowell's enabling legislation minimizes Federal land ownership and mandates that preservation and interpretation at Lowell involve partnerships among Federal, State and local agencies, and the private sector.

The Park enabling legislation required the National Park Service to develop a General Management Plan for the Lowell National Historical Park and submit it to Congress not later than three years after the date on which funds were made available to carry out the Act. The plan which provides the basis for interpretation and visitor use, cultural resource management, and general development within the park was completed in August 1981.

The enabling legislation also charged the Lowell Historic Preservation Commission with the following responsibilities:

- To compile an index of historic and cultural properties within the Park and Preservation District
- To devise standards for rehabilitation and new construction in the District and to work with the City to convert these standards to local ordinances
- To assist with the preservation of ten significant buildings within the National park
- To assist with trolley and barge transportation systems for Park visitors.
- To provide for education and cultural programs to encourage appreciation of the resources of the Park and Preservation Districts

The Commission's Preservation Plan, completed in 1980 in accordance with its legislative mandate outlines the manner in which the Commission was to implement the above actions. In accordance with its 1987 reauthorization, the Commission completed the Preservation Plan Amendment which was approved by the Secretary of Interior, September 10, 1990.

The federal statute creating the Lowell National Historical Park called for the creation of a local design review board to assure that private actions would not be inconsistent with the Park's preservation goals. Since the establishment of the Lowell Historic Board in 1984, over 1,600 permits have been issued to property owners within the district demonstrating an extraordinary level of change within this small geographic area.

V. Methods and Products

Section 106 and NEPA Requirement

No new programs are proposed that were not already contemplated in the Park's GMP, or in the Commission's Preservation Plan and Amendment.

An Environmental Impact Statement was prepared for the Park's GMP in August 1981. An Environmental Assessment and Finding of No Significant Impact (FONSI) were prepared for the Preservation Plan and Preservation Plan Amendment in 1980 and 1990 respectively. Copies of the Environmental Assessments for the Preservation Plan and Preservation Plan Amendments can be found embodied in the Appendices of their respective plans and are also attached hereto.

The programs of the Commission were always part of the vision of the Park and were outlined in the Park's GMP. Because of their common mission and goals, the Park and Commission sought ways of combining their efforts in assessing the environmental impacts of proposed actions. Wherever possible, a discussion and assessment of Preservation Commission projects was included in the Park's Environmental Impact Statement. The Commission's Environmental Assessment provides a more detailed assessment of its mandated programs, with attention paid to the standards and criteria for development in the Preservation District and the Commission's grant and loan program.

The Preservation Plan and Preservation Plan Amendments are both approved Section 106 plans which are in accord with an agreement pursuant to 36 CFR Sec 800 of the Advisory Council on Historic Preservation Regulations as documented in the attached letters dated May 1, 1981 and June 20, 1990 respectively. The projects of the Commission outlined in the Preservation Plan and Preservation Plan Amendments will be carried out by the Lowell National Historical Park in line with the Section 106 compliance that the Commission was responsible for.

Public Involvement and Information

Since the Park is not proposing any new programs not already contemplated in the Park's GMP or the Commission's Preservation Plan and Preservation Plan Amendment, a public hearing is not required. However, in order to update the community on the Park's ongoing development programs and to clarify for the public the new role of the Park in the absence of the Commission a public information meeting was held on December 10, 2002.

VI. Data Requirements

Existing Documents

Cultural Resources Inventory

Mandated in the park's enabling legislation, the Cultural Resource Inventory, prepared in 1979 by Shepley, Bulfinch, Richardson and Abbott, provides an inventory and assessment of historical significance for every structure in the Park and Preservation District.

Lowell National Historical Park - GMP, August 1981

The Lowell National Historical Park General Management Plan was completed in August 1981 as mandated in the Park's enabling legislation. The GMP provides the framework to interpretation and visitor use, cultural resources management, and general development within the Park. The plan also outlines cooperative agreements and technical assistance measures that will be undertaken to fulfill the goals of the Park. Although much of park's general development have been implemented, the management objectives described in the plan remain relevant and continue to serve as a long-range guide for park operations and development.

Preservation Plan, 1980/Details of the Preservation Plan

The Preservation Plan and Details are a two-volume plan, mandated under Public Law 95-290. The Preservation Plan is an action plan that outlines initiatives for the preservation of Lowell's historic and cultural resources. It outlines projects mandated by the Act including development of: The Lowell Manufacturing Company; Early Residence; H&H Paper Company; Boott Mill Park (Boardinghouse Park); and the Boott Mills. The Details of the Preservation Plan is a technical appendix to the Preservation Plan. It contains suggested standards for rehabilitation and new construction, a list of structures within the preservation district which qualify for financial assistance under the Commission's facade grant and loan program, and an Environmental Assessment, prepared in compliance with the National Environmental Policy Act.

Preservation Plan Amendment, 1990

This report, mandated by Congress in PL 100-134, is an amendment to the 1980 Preservation Plan. The Plan summarizes the accomplishments of the Commission and outlines its proposed activities for the following 7-years. The primary focus of the plan is on the Canalway and Folklife; two important elements of the Park development program that had not yet received the attention they deserved.

Interpretative Perspectus, 1984

The Lowell National Historical Park Interpretative Perspectus outlines the Park's basic approach to interpretation. This plan identified five aspects of Lowell's industrial history around which interpretive programs, activities and permanent museum exhibits are organized. These included: Power, Capital, Labor, Machines (Technology), and The Industrial City.

Comprehensive Interpretive Plan, 1997

The Comprehensive Interpretive Plan provides a long range vision of the Park's comprehensive interpretative program. It is implemented each year through the Park's Annual Plan as part of the Government Performance and Results Act (GPRA) planning process. The thematic statements and topics presented in the plan provide the basic framework on which individual park programs are developed.

Updated and New Documents

Cultural Resource Inventory Update

In 1993, the Lowell Historic Preservation Commission hired a consultant to prepare cultural resource inventory sheets for the properties added to the Preservation District through a minor boundary change in 1989. In fulfillment of requirements of the National Historic Preservation Act for National Historic Register Listing, the Lowell National Historical Park is currently working with the City of Lowell Historic Board to document the current status of the properties in the 1979 Cultural Resource Inventory and 1993 Update.

Addendum to Land Protection Plan

The Park is currently in the process of completing an addendum to its 1984 Land Protection Plan. The Addendum provides an updated listing of properties acquired by the Park and Preservation and outlines several developments currently impacting the Park's land protection program. These include: 1) Termination of the Lowell Historic Preservation Commission, 2) Lease of the B&M Railroad Depot through the National Historic Leasing Act Program, 3) Acquisition of a new site for the Park's maintenance facility and disposal of the old site, and 4) Acquisition of the B&M right-of-way for operation of the Park trolley system.

Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

JUN 20 1990

Mr. Peter J. Aucella
Executive Director
Lowell Historic Preservation Commission
Old City Hall
222 Merrimack Street
Suite 310
Lowell, MA 01852

REF: Preservation Plan Amendment

Dear Mr. Aucella:

On May 14, 1990, the Council received your determination that implementation of the referenced plan would have no adverse effect upon Lowell's National Register listed or eligible properties. Based upon the material which accompanied your determination, including the concurrence of the Massachusetts State Historic Preservation Officer, we see no reason to raise an objection. Both this letter and your supporting documentation should be retained in your environmental or project files, as evidence of your compliance with Section 106 of the National Historic Preservation Act.

We applaud the continuing innovative efforts of the Lowell Historic Preservation Commission. Thank you for your cooperation.

Sincerely,


Bob L. Klima
Director, Eastern Office
of Project Review

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Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

May 1, 1981

Ms. Sarah M. Peskin
Planning Director
Lowell Historic Preservation Commission
Department of the Interior
204 Middle Street
Lowell, MA 01852

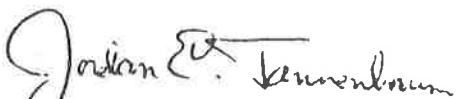
Dear Ms. Peskin:

On April 21, 1981, the Council received the documentation, requested by us on the February 12, 1981, supporting your determination that implementation of the Lowell "Preservation Plan" and the Rehabilitation Loan and Grant Program would not adversely affect the Lowell Locks and Canals Historic District and other properties in Lowell included in for the National Register of Historic Places. In accordance with Section 800.6(a) of the Council's regulations (36 CFR Part 800), the Executive Director does not object to your determination.

As provided in Section 800.9 of the Council's regulations, a copy of your determination of no adverse effect, along with supporting documentation and this concurrence, should be included in any assessment or statement prepared for this undertaking in compliance with the National Environmental Policy Act and should be kept in your records as evidence of your compliance with Section 106 of the National Historic Preservation Act and the Council's regulations.

Thank you for your cooperation.

Sincerely,



Jordan E. Tannenbaum
Chief, Eastern Division
of Project Review

Secton I. Preface

the Department of the Interior on

the City of Lowell.

Purpose of the Environmental Assessment

This document was developed to:

(1) make public the key alternatives that were considered and evaluated during the Commission's planning process, and (2) to partially comply with the requirements of the National Environmental Policy Act of 1969, as amended (NEPA). Specifically, Section 102(2) of NEPA requires that the agencies of the federal government analyze the impacts of their proposed actions on the human environment. These impacts on the City of Lowell have been assessed by both the National Park Service and the Commission.

The National Park Service prepared an Environmental Impact Statement on their General Management Plan and on the overall impacts of the Commission's eight-year involvement in Lowell (draft Environmental Impact Statement, June 1980). The document covers the Commission's proposed actions in so far as they were known at the time. Because of the complementary--and close jurisdictional--relationship between the two agencies, the Commission worked closely with the Park Service during the preparation of the Environmental Impact Statement.

The Commission prepared this document, an Environmental Assessment, to analyze the impacts of the Preservation Plan and alternatives that were not fully addressed in the NPS Environmental Impact Statement. Extensive references to the Environmental Impact Statement are used in order to avoid unnecessary duplication of narrative and analysis material. Such references are noted as "NPS/DEIS."

For further information contact:

Sarah Peskin or Nancy Bellows
Lowell Historic Preservation
Commission
204 Middle Street
Lowell, Massachusetts 01852
(617) 458-7653

Need for the Project

The project which is the focus for this environmental analysis is the Preservation Plan of the Lowell Historic Preservation Commission. The Plan itself has been developed according to directives and guidelines set forth in Public Law 95-290, the enabling legislation for the Lowell National Historical Park. In general, the legislation - and the various agencies and individuals involved in the National Park development process - recognized the need for a well-integrated Plan for the Preservation District that would present a clear strategy for actions to be undertaken by the Lowell Historic Preservation Commission during its 10-year life.

Relation to the Preservation Plan

The Environmental Assessment is a preliminary analysis of the impacts of the Lowell Historic Preservation Plan. It is important to understand that it is an analysis of a complex, multi-faceted plan, rather than an analysis of one specific proposed action such as construction of a highway.

Throughout the planning process, a variety of alternatives were developed for the major types of proposed projects. The probable physical, social, economic and institutional impacts of the alternatives were then evaluated and discussed. The Assessment records the highlights of this analysis process in accordance with regulations established by the Council on Environmental Quality and adopted by the Department of the Interior. Thus, the Assessment gives the background to the Plan by documenting why certain alternatives were preferred over others.

The Environmental Assessment has five sections:

I. Preface

II. The Existing Environment

III. Lowell Historic Preservation Commission Objectives and Overall Criteria

IV. Environmental Impact Analysis

V. Consultation

Section IV, a discussion of proposed actions, alternatives and the probable environmental effects thereof, is the key technical section. The discussion in Section IV parallels the sequence of material presented in the preservation Plan.

In terms of technical methodology, the Environmental Assessment utilizes a mix of quantitative and qualitative tools. The emphasis on known facts and figures and common sense evaluations. The Environmental Assessment is thus meant to be a highly technical research document.

Next Steps

This Environmental Assessment is a document prepared to assist planning and decision-making. It will be reviewed by the Lowell Historic Preservation Commission. The Commission will then make a formal finding on the significance of the probable environmental impact of the preservation plan. The finding will be either: (1) a Finding of No Significant Impact ("FONSI") or a Significant Environmental Impact. The latter finding would necessitate a full Environmental Impact Statement (EIS).

The Assessment gives the background to the Plan by documenting why certain alternatives were preferred over others.

In conclusion, while the Commission and the National Park Service each has a responsibility to prepare its own NEPA compliance documents, the Impact Statement and the Assessment should be read together so the public can understand the impact of

Environmental Assessment on the Preservation Plan

Prepared by
Lowell Historic Preservation
Commission
Lowell, Massachusetts
August 1980

Section III. The Existing Environment

Massachusetts Department of Environmental Management, the National Park Service and the Lowell Historic Preservation Commission.

Extensive background material on the City of Lowell, both in terms of history and existing conditions, is contained in the National Park Service's General Management Plan, in the Draft Environmental Impact Statement on the plan, in the Report of the Lowell Historic Canal District Commission (the "Brown Book"), in the final report for the Lowell Historic Preservation Plan and in various other documents. There is no need to repeat these details here. (See NPS/DHIS, "Affected Environment," pp. 9-74).

In brief, however, the environmental factors in Lowell that were of primary concern in the development of the Lowell Historic Preservation Plan were:

- Lowell's nationally significant and colorful history, exemplified today by the many fine historical buildings and by the continuing cultural diversity and vitality of the city's ethnic neighborhoods.

- Lowell's period of economic decline, from about 1920 to 1970.

- Current strong trends toward economic revitalization and the development of a new physical and economic structure for the city.

- The need to preserve historical sites and structures, and to encourage the continued vitality of ethnic neighborhoods even as Lowell grows, changes and prospers.

- The actions of the major public agencies that are involved in the current program of economic revitalization and historic preservation, including Lowell's elected officials and line departments, the

public transportation along Merrimack Street and along other City arteries. Traffic congestion and parking are major problems, especially in the downtown area.

- Facilities required for and impacts created by the hundreds of thousands of visitors who are expected to come to Lowell every year.

- The logistical, financial and institutional challenges involved in creating a national cultural historical park in the heart of a densely developed city of 95,000 people.

The Preservation District

The primary impact area for the Preservation Plan will be the National Historical Park and the preservation District. The next few pages will provide key data on the park and the Preservation District. The objective here is to provide baseline data on the existing environment that may be affected by the actions proposed in the Preservation Plan.

The boundaries of the Preservation District and the National Historical Park are shown on the accompanying map. It can be readily seen that these boundaries have been designed to include all major river banks and canals in Lowell, all of the major historic mill complexes, the downtown commercial district (Central and Merrimack and vicinity), and parts of the two neighborhoods known as "the Acre" and Chapel Hill. The boundaries were also designed to include all of the National Park properties, and to provide buffer areas between the Park and other areas of the City. The Preservation District encompasses about 583 acres of land area, 5.6 miles of canals, and 9.6 miles of river banks.

The Preservation District contains most of the primary historic resources of the City of Lowell.

Within the District's boundaries, there are 383 buildings and structures of national historical significance and 227 buildings of local historical or architectural significance. There are also numerous sites of historical or archeological significance, and a variety of special historical resources such as old canal locks and mill machinery.

Much of the Preservation District consists of commercial and industrial buildings and uses. The District's population is centered in the Acre and Chapel Hill. The major ethnic groups within the district are Greek, Portuguese, Hispanic, Franco-American and Blacks. The land use pattern is generally that of a densely developed, industrialized nineteenth century city. The commercial buildings on Central and Merrimack Streets and the large mill complexes are the dominant land uses.

The cultural dynamics of the two major neighborhoods within the Preservation District - the Acre and Chapel Hill - are an important factor. The Acre is a historically strong ethnic neighborhood that is currently suffering from problems of absentee landlords, physical deterioration and loss of buildings through fire. The residents are primarily Hispanic people with low incomes. Chapel Hill is a strong ethnic neighborhood that is characterized by a high level of social cohesion, a high percentage of home ownership and well-maintained homes. The residents are primarily Portuguese people. Saint Anthony's Church serves the neighborhood as a center for social and cultural activities.

The transportation system consists of a dense network of relatively narrow one- and two-way city streets. The major access routes into the Preservation District are Gorham/Central Street and Thorndike Street from the south, and four bridges spanning the Merrimack River to the north. City buses provide

public transportation along Merrimack Street and along other City arteries. Traffic congestion and parking are major problems, especially in the downtown area.

The Preservation District's economic resources consist primarily of industrial and commercial establishments. The historic mill buildings provide most of the industrial space - a total of 3,376,290 square feet in 1980. About 73% of this space is currently occupied. Retail space is concentrated in the downtown section of the Preservation District. Current occupied retail space Downtown totals 305,294 square feet. There is also a total of 540,135 square feet of existing general office space in the Downtown area, of which 73.1% is presently occupied. Available data indicate that commercial sales and selling prices for industrial and commercial real estate are both increasing at a healthy rate. (See NPS/NEIS pp. 45-58).

Natural resources within the Preservation District, other than water resources, are not of great significance. The District is a highly urbanized area. Adverse impacts on biological resources such as vegetation and wildlife, and irretrievable use of non-biological resources such as soils, rock materials and land area had already occurred by the early nineteenth century. Water resources are, of course, of primary importance to the Preservation District. The 5.6 miles of canals and 9.6 miles of riverbanks included within the District are important historical/natural resources. Generally, water quality for the canals and the Merrimack and Concord Rivers has improved during the past decade, but there are still illegal discharges and storm drain overflows that flow directly into the canals. Incompatible land uses such as scrap metal and oil storage on the banks of the Pawtucket Canal may have an adverse impact on water quality. It is expected that water quality will

continue to improve during the 1980's, and that water-related active and passive recreational activities, as well as a number of low-head hydro-power projects, will increase in importance.

The NPS/DEIS provides basic information on air quality resources (pp. 45-47) and potential impacts of park visitors on air quality (pp. 92-94). Primary current air quality problems are violations of the state ozone standard (a problem common to all Massachusetts communities) and so as to provide for the greatest possible economic, cultural and historic preservation benefits for the people of Lowell. (See NPS/DEIS pp. 48-52 for summary of other plans.)

Existing Regulatory Controls that affect the Preservation District include the following:

1. Building Code.
2. Lowell Zoning Code, including Flood Plain District Regulations.
3. Lowell Historical Commission-approval powers for certain kinds of projects within the City Hall Historic District and the Locks and Canals Historic District.
4. Lowell Health Code.
5. Wetlands Protection Act.

These regulatory controls have been considered adequate for the normal range of business and development activities that Lowell has experienced in recent years. New initiatives sponsored by the Park Service and the Preservation Commission will, however, require some improvement in regulatory controls and procedures.

The major Current Plans and Programs that will affect the Preservation District are:

1. The Preservation Plan, Lowell Historic Preservation Commission.

2. The Lowell National Historical Park General Management Plan, National Park Service.
3. The Lowell Heritage State Park Plan, Massachusetts Department of Environmental Management.

4. The Lowell Plan, City of Lowell.
- These important planning, action and investment efforts have been designed to complement one another so as to provide for the greatest possible economic, cultural and historic preservation benefits for the people of Lowell. (See NPS/DEIS pp. 48-52 for summary of other plans.)

section III. Lowell Historic Preservation Commission Objectives & Overall Criteria

1. To compile an Index of important historic and cultural properties within the Park and Preservation District.
2. To develop Standards for future construction activities within the preservation District, and to work with the City to incorporate these Standards into appropriate local ordinances.
3. To assist in the development of trolley and barge transportation systems for Park visitors.
4. To provide for educational and cultural programs.
5. To provide grants and loans to preserve naturally significant structures.

For these elements of the Preservation Plan, then, the alternatives of "No Action" or a substantially different kind of action were not feasible alternatives. Thus, alternatives for these elements consisted of relatively detailed options that could reasonably be considered within the overall framework of the legislative mandate.

Summary of Commission Theme

The Lowell Historic Preservation Commission is a unique federal agency. The Commissioners are representatives of local, state and federal agencies who are working together to ensure that the various major plans and development initiatives will respect, support, and provide for expression of the special way of life of the people of Lowell, both past and present.

The Commission's overall theme is thus: "To tell the human story of the Industrial Revolution in a nineteenth century setting by encouraging cultural expression in Lowell."

This overall theme, together with the Commission's legislatively-mandated programs, constitutes the primary evaluative framework for all elements of the preservation plan.

Related Evaluation Criteria

During the course of the planning process, a "second level" of evaluation criteria began to be articulated. These criteria were then used to assess the feasibility and impacts of reasonable alternatives for the various elements of the Preservation Plan. These related evaluation criteria included the following:

1. Responding to Cultural Needs - Commission projects and programs should be designed in a way that will maximize support of important ethnic/cultural resources and respond to identifiable needs for cultural activities,

celebrations, festivals and exhibits.

range alternatives should not be given a high priority.

2. Fiscal Feasibility - Commission's total fiscal resources will be limited to \$21.5 million (construction) over a 10 year period. The desirability of certain alternative actions and projects - especially in the capital intensive areas of major acquisition and rehabilitation - must therefore be evaluated within the context of finite funds.

3. Leveraging of Funds - Given its limited fiscal resources, the Commission should seek to increase the effectiveness of its project and program expenditures by linking such expenditures to the investment of other substantial public or private funds.

4. Concentration of Resources - Commission should also seek to concentrate its expenditures so that designated parts of the overall Preservation District will benefit significantly during the Commission's 10 year life span.

5. Management Feasibility - the ability of Commission to manage larger projects on a day-to-day basis should also be carefully considered. The 12 member staff of full-time professionals has a wide range of abilities. However, the staff's time and energies are finite, and significant future growth in the size of the staff is not expected.

6. Implementation Timing - Alternatives for major projects and programs should also be evaluated in terms of probable time required for implementation. Since the Commission must complete its work by the end of 1988, extremely complex and long-

Section IV. Environmental Impact Analysis

Summary of Findings

2. Acceptability to the City - The goals, objectives, policies and programs of key city agencies and officials must be considered and respected. Alternatives that may cause conflicts with City policies and programs should not be pursued.

3. Accountability - The Lowell Historic Preservation Commission is primarily accountable - in theme and in spirit, if not by actual legislation - to the people of Lowell. All alternatives must therefore be carefully evaluated in terms of their social and cultural implications.

4. Leveraging of Funds - given its limited fiscal resources, the Commission should seek to increase the effectiveness of its project and program expenditures by linking such expenditures to the investment of other substantial public or private funds.

5. Management Feasibility - the ability of Commission to manage larger projects on a day-to-day basis should also be carefully considered. The 12 member staff of full-time professionals has a wide range of abilities. However, the staff's time and energies are finite, and significant future growth in the size of the staff is not expected.

This section of the environmental analysis provides a discussion of the major proposed actions that make up the Preservation Plan, the reasonable alternatives that were considered, and the probable environmental impacts, whether beneficial or adverse, that the proposed actions and the alternatives may be expected to have. The intent here is to provide highlights of the planning/evaluation process, and to discuss probable impacts in a concise fashion. As mentioned earlier, the National Park Service Environmental Impact Statement analyzes the overall impacts of the Commission actions (see NPS/DEIS p. 98).

The organization of this discussion parallels the organization of the final report for the Lowell Historic Preservation Plan. The reader is referred to that document for more details on various plan elements.

The assessment of each of the major elements of the Plan generally follows a standard narrative sequence:

- objectives
- specific criteria
- the proposed action
- the alternatives
- probable environmental impacts
- mitigating measures, if appropriate.

An analysis of probable environmental impacts, both adverse and beneficial, was conducted for 23 components of the Lowell Historic Preservation Plan. For each of the major proposed actions, the findings of this impact analysis have been summarized in the accompanying chart. Beneficial impacts have been noted with a "+", adverse impacts noted with a "-", and neutral impacts have been noted as "-".

Summary of Impacts

MAJOR COMPONENTS OF THE PLAN	ENVIRONMENTAL IMPACT FACTORS				
	HISTORIC PRES.	SOCIAL	PHYSICAL	ECONOMIC	GOVERNMENTAL
Boundary Changes					
Index Standards	+ + +				
Regulatory Framework					
Financial Assistance Programs					
Transportation					
Trolley System	+ +				
Parking Garages					
Canal Barges	+ +				
Pedestrian Improvement					
District-Wide Cultural Programs	+ +				
Key Projects					
Gateway Exhibits	+ + + + +				
Labor Exhibits					
Cultural Center					
Boott Mill Park	+ + + + +				
Boott Mill					
Mandated Projects					
AHEPA Building	+ + + + +				
Jordan Marsh Co.					
St. Anne's	+ + + + +				
Weilles Block					
Yorick					
Lowell Institution for Savings	+ + + + +				
Lowell Gas Light Co.					
World's & Martin's					

+ Beneficial Impact
- Adverse Impact

Boundary Changes

The boundaries of the Lowell Historic Preservation District were first defined in 1977. One of the important results of the Commission's past year of study has been a determination that some adjustments in the District's boundaries are necessary.

The final recommended boundaries for the district, as documented in the Preservation plan, were determined according to several criteria:

1. Protect significant properties and cultural resources.
2. Provide reasonable limits for areas and properties that would be eligible for financial assistance from the Commission.

In response to these criteria, and as a result of careful research, a total of five small areas were added to the Preservation District. These changes are considered minor. Two major changes were also proposed:

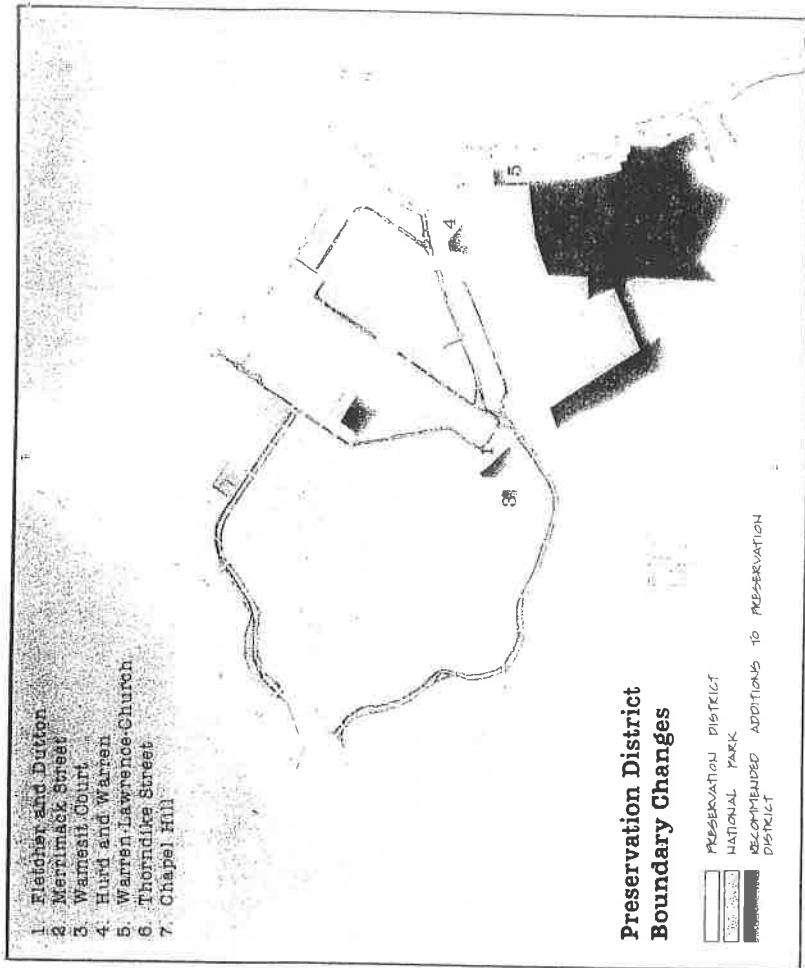
1. Thorndike Street, Highland South Common area - an area of about 16 acres with two nationally significant structures.
2. Chapel Hill - an area of about 90.5 acres with over 750 structures, primarily residential, with a small number of nationally significant buildings.

The primary impact resulting from inclusion of these two areas within the Preservation District

will be the applicability of the Commission's standards for rehabilitation and new construction. The application of the standards to the Thorndike Street area will help to ensure that this primary vehicular "gateway" to the National Park will be appropriately rehabilitated and preserved.

Chapel Hill residents will be able to apply for grants and loans for exterior rehabilitation work that might otherwise not be done according to preservation standards. Adding the small number of buildings that are eligible for grants and loans to the District will only slightly increase the workloads required to administer the standards. Outreach efforts to explain the opportunities for financial and technical assistance will be necessary. In general, the addition of Chapel Hill to the District will draw Commission funds and staff time away from other projects.

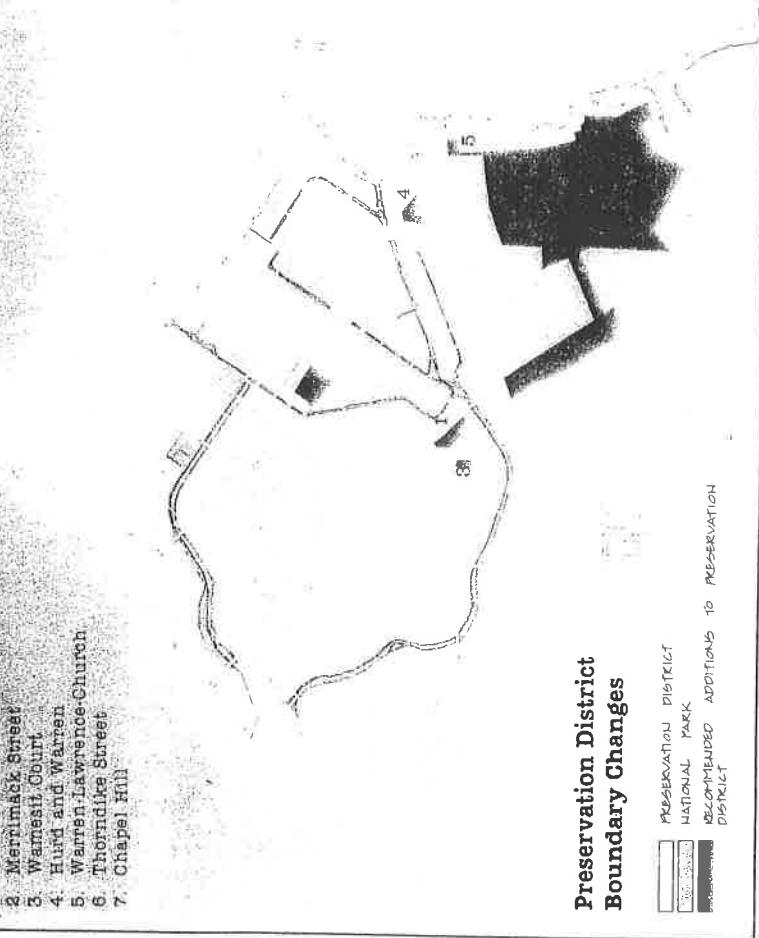
The No Action alternative was considered for the two major proposed boundary changes. In this case, No Action would simply mean that these two additional areas would not be included in the Preservation District. It was determined that action in these two cases was appropriate in view of the objectives for the Preservation District boundaries.



Preservation District Boundary Changes

PRESERVATION DISTRICT
NATIONAL PARK
RECOMMENDED ADDITIONS TO PRESERVATION DISTRICT

1. Fletcher and Dutton
2. Merrimack Street
3. Warren Court
4. Hurd and Warren
5. Warren Lawrence-Church
6. Thorndike Street
7. Chapel Hill



The Index

The objective of the Index was to identify nationally significant buildings within the preservation District. These buildings would be eligible to receive grants and loans from the Commission for the purposes of historic preservation and rehabilitation.

5. Integrity and Significance of Historic Environment

6. Archeological Significance

These factors were then used to define the categories of buildings as follows:

A1 - Properties must be significant in terms of at least one of the first three criteria, and, with a few exceptions, selected because of their rarity and importance to social and architectural history; must also conform to criterion #4, integrity of historic fabric.

A2 - Properties must be of sufficient importance in at least one of the first three criteria and/or in the fifth criterion to be considered of national significance. A2 includes properties that are of less individual distinction than those in A1, but which are part of an urban building group or environment of national significance.

A3 - Properties which meet one or more of these criteria, but which are not as outstanding or as well preserved as A1 or A2 buildings.

C - Properties that do not meet any of the criteria, but do not cause a negative impact on the Park or the Preservation District.

D - Properties that do not meet any of the criteria, and that have a negative effect on the historical or environmental character of the Park or Preservation District.

Implicit in nature, are not scientifically quantifiable. The extent to which a particular building meets one or more of the criteria was, of necessity, an informed judgment made by the architectural historian consultant and the Commission's staff.

For the Index, the No Action alternative was not considered, since development of the Index was mandated by P.L. 95-290. There were, in effect, only two alternative strategies considered for the development of the Index:

A. Develop an Index for nationally and locally significant historical buildings only.

B. Develop an Index for all buildings within the Preservation District, including ranking of buildings that are of no particular historic value (categories C & D).

Alternative B was chosen because it provided for a more comprehensive survey and indexing methodology.

Category A: Buildings of national significance; 383 buildings and structures. The A category was further subdivided into A1 buildings - those of high individual importance (total of 156) and A2 buildings - buildings nationally significant as a group (total of 227).

Category B: Buildings of local historical and architectural importance; 227 buildings.

Category C: Buildings that do not contribute to the themes of the Park, and that have no special negative effect on A or B buildings; 91 buildings.

Category D: Buildings that are inconsistent with the Park themes and negatively affect A or B buildings; 58 buildings.

Of primary concern here are the criteria that were used to group buildings into these four categories. The criteria are described in detail in the Index. In brief, there were six factors considered in the grouping process:

1. Historical significance
2. Architectural or Engineering Significance
3. Architectural or Engineering Typology
4. Integrity of Historic Fabric

It can readily be seen that these criteria, while fairly ex-

Alternative A would be expected to have a similar effect. Since this alternative would not have given an official designation to buildings of no particular significance, however, it can be expected that an Index developed under this alternative would have resulted in a certain amount of confusion among property owners.

Standards
One of the Commission's major responsibilities under P.L. 95-290, the Park enabling legislation, is to develop Standards for "construction, preservation, restoration, alteration, and use of all properties within the preservation district." The purpose of the Standards is to guide private and public rehabilitation and construction efforts so that the integrity of Lowell's 19th century setting is preserved.

Within a year after the Standards have been completed, the legislation calls for their adoption by the City in the form of regulatory ordinances. Thus, the Standards and the recommended Regulatory Framework are integrally related, and the probable impacts of these two important elements of the Plan must be considered in close relation to one another.

The specific criteria that were set forth at the beginning of the work on Standards included the following key points:

1. Standards must be sensitive to and specific to environmental, architectural and developmental characteristics of the City of Lowell.
2. Standards should complement material contained in the Secretary of the Interior's Standards or in Lowell - The Building Book.

guiding and regulating rehabilitation activities.

3. Standards should be documented in a standard format, with good illustrations and a text readable by the layman.

The final product of the past year's work on Standards is a document that contains standards for three major areas of construction: preservation of Existing Buildings, New Construction and Public Improvements. These recommended standards constitute the proposed action for this element of the plan.

The No Action Alternative does not apply, as this plan element was mandated by P.L. 95-290. The primary alternative action that was considered was the development of Lowell-specific design and use standards that would be enacted as specific ordinances rather than as guidelines.

The expected impacts of the proposed action and the alternative action relate primarily to economic, political and historic preservation factors. The impacts may be summarized as follows:

1. The proposed action will have a number of beneficial impacts. Standards used in the form of guidelines will provide a flexible working tool that will help to ensure that future construction activities within the Preservation District are compatible with the 19th century theme. The proposed action will also be more politically acceptable and will avoid some legal complications.
2. The alternative action would presumably provide for much stronger control of construction activities within the Preservation District, and thus a more substantial beneficial impact in terms of historic preservation. On the negative side, however, experience in the field of historic preservation has clearly shown that it is both legally difficult and politically controversial to attempt to enact

design standards as mandatory rules and regulations. A proposal to proceed with the alternative action would surely meet with resistance from many business and property owners who have a financial stake in the Preservation District. Even if the alternative action was successfully implemented, frequent legal

tions and review procedures. Implementation of economic-ally important building projects may thus experience significant delays. Certain specific standards may also be found to conflict with materials and construction methods preferred by homeowners and property owners. This kind of conflict may cause enforcement problems.

By not requiring permits for certain minor exterior work, the process will be simplified - thus mitigating the adverse impact.

A related concern is that it may be difficult to translate the Commission's standards (which are written as guidelines) into a form that can be enforceable preservation tools. A streamlined regulatory framework within which the standards will be used is crucial in order to mitigate adverse impacts.

2. The alternative action would presumably provide for much stronger control of construction activities within the Preservation District, and thus a more substantial beneficial impact in terms of historic preservation. On the negative side, however, experience in the field of historic preservation has clearly shown that it is both legally difficult and politically controversial to attempt to enact

specific criteria used in the development and evaluation of alternative regulatory systems included the following:

1. Legal authority and precedents must exist.
2. The cooperation of City officials and personnel will be essential.
3. Regulatory systems must be implementable - as per P.L. 95-290 - within a one year period.

challenges and requests for appeals would have to be expected, with attendant costs to the City and, ultimately, to the taxpayer. Detailed, mandatory design standards would also probably cause substantial delays in major construction projects within the Preservation District.

Mitigating measures for the possible adverse effects of the proposed standards will take the form of a well-designed regulatory system for use and administration of the standards. The regulatory system will provide an efficient, stream-lined system for implementing the standards. An additional mitigating measure will be technical assistance provided by Commission staff to property owners in the use and application of the standards. This system is the subject of the next part of this section.

Regulatory Framework

In accordance with the provisions of P.L. 95-290, this element of the Preservation Plan defines a regulatory framework or system which will provide for effective application of the standards to future construction activities within the Preservation District.

Specific criteria used in the development and evaluation of alternative regulatory systems included the following:

1. Overlay District - technical revisions to Lowell's existing Zoning Ordinance.
2. Amend Zoning - technical revisions to Lowell's existing Zoning Ordinance.
3. Expand Local Historic Districts - create one or more new local historic districts to coincide with preservation District boundaries.
4. New State-Established Local Historic District - including creation of a new Commission with review and approval powers.
5. Design Review Board - creation of an independent review board to approve permits within the Park and Preservation District.

The proposed action is a regulatory system that combines desirable aspects of the five alternatives that were evaluated initially. The major features of the proposed system are:

- Creation of a new overlay zoning district that coincides with the boundaries of the preservation District.
- Creation of a 5 or 7 member Historic Preservation District Advisory Board to review major proposed actions (using the established standards), and to make appropriate recommendations to City Council.

4. Insofar as possible, regulatory systems should simplify rather than complicate the building permit process.
5. The regulatory system must be clear, strong, yet flexible.

Initially, five alternative actions were considered and evaluated. They were:

1. Overlay District - with emphasis on special permits to be granted by City Council.
2. Amend Zoning - technical revisions to Lowell's existing Zoning Ordinance.
3. Expand Local Historic Districts - create one or more new local historic districts to coincide with preservation District boundaries.
4. New State-Established Local Historic District - including creation of a new Commission with review and approval powers.
5. Design Review Board - creation of an independent review board to approve permits within the Park and Preservation District.

- All major action to require a special permit from City Council.
- Approval of minor actions and program administration to be handled by a special District Administrator (full-time professional).

The primary environmental impacts of the five alternatives (to be discussed first) and of the proposed action are primarily in the areas of political acceptability, enforcement problems and administrative - and thus cost-implications. The major adverse and beneficial impacts are summarized below.

aspect is the fact that this alternative makes no clear provision for use of the Standards that have been developed as part of the preservation plan.

3. Expand Local Historic Districts - This alternative

would also have a clear legal status and would build on precedents already existing in Lowell. Adverse impacts, however, include: no direct involvement for City Council, major new responsibilities for the existing Lowell Historical Commission and the necessity for the addition of a full-time staff for the Commission.

4. New State-Established Local Historic District - Beneficial aspects

include the creation of a new local Commission with a strong identity and considerable regulatory powers, as well as the creation of a strongly defined special district. The primary adverse impact would be the necessity of creating an entirely new Commission and related full-time staff.

5. Design Review Board - The primary beneficial aspect would be the creation of a separate, identifiable and potentially well-qualified Board that could apply the Standards to future proposed projects within the Preservation District. Here again, however, an entirely new entity - and related staff - would have to be created.

Another negative aspect would be the limited enforcement powers of Design Review Boards. Finally, this concept seems to have little support from City officials.

6. The Proposed Action - The proposed regulatory system

essentially combines key aspects from alternatives 1, 3, and 4. The primary beneficial aspects include: a clear legislative basis, a clearly defined district, strong involvement on the part of City Council, an Advisory Board that would be a natural extension of the current informal review process being used by the Commission, NPS and DPD, and the creation of a Special District Administrator position. This regulatory system would also provide for strong application of Standards.

Adverse impacts could be experienced in the area of existing institutional/political structures: the existing Lowell Historical Commission may be reluctant to relinquish some of its responsibilities to the new Advisory Board, and the Building Department may react negatively to the creation of a new Advisory Board and District Administrator. Special state legislation may also require more time and energy than would several of the other alternatives.

The possible adverse impacts outlined above may be at least partly mitigated by careful design of this new regulatory system so as to provide for: (1) a significant role for the Lowell Historical Commission, (2) a clear link to the Building Department - the agency that will still be in charge of issuing building permits. The time and energy problem - as well as the possible problem of new administrative costs - can be mitigated through a commitment of significant Commission staff and funding resources.

Grant and Loan Program

The objective of the Grant and Loan Program is to provide incentives for private sector rehabilitation of exteriors of buildings that are of national historical significance. The cost of these assistance programs is substantially less than the alternative of federal acquisition and management of significant buildings. It is estimated that for every Commission grant dollar, there will be over \$20 in private investment. Due to the strengthening economic climate in Lowell, it is felt that this investment will occur whether or not the Commission participates with its grants and loan program. There were no special criteria associated with the development of the grant & loan program. The Commission's prime concern in this area of its activities is to follow criteria #3 and #4 discussed in Section III of this Assessment: "Leveraging of Funds" and "Concentration of Resources".

The proposed action consists of concentrating 90% of the Commission's annual financial assistance budget in four areas of the Preservation District: City Center, Lower Locks, the Acre, and Chapel Hill. These four areas have been identified as having the greatest potential for both active cultural programs and preservation of the 19th century setting. Major Commission cultural and development programs have been planned so as to concentrate on these four priority areas. Owners of historic buildings within these areas that are designated A1 or A2 in the Index will be invited to submit proposals for financial assistance twice each year. Grants and/or loans may be requested. Maximum grant amounts will be 50% of cost of exterior rehabilitation or up to \$75,000; maximum loan amounts will also be \$75,000.

The \$5,750,000 allocated for grants and loans represent about 2%

of the Commission's overall development authorization.

The principal alternative that was considered for this element of the plan was a district-wide (rather than concentrated) grant and loan program. Under this alternative, all buildings within the preservation District that are designated A1 or A2 in the Index would be eligible for grants and loans.

The major environmental impact concerns here are the preservation of the 19th century setting and stimulation of private sector initiatives for rehabilitation and adaptive reuse of major historic buildings. The expected environmental impacts for the proposed action and the alternative action are:

2. The district-wide funding strategy that would occur under the alternative action would, of course, solve this negative aspect of the proposed action. Possible negative impacts of the alternative are, of course, linked to the realities of the Commission's limited financial resources. With only about \$5,750,000 to allocate to the grant and loan program over the next

eight years, a district-wide program would seriously detract from the potential for strong visual and historic preservation impact for specific streets and groups of buildings. A district-wide financial assistance program would thus not be the best expression of the Commission's overall theme, nor of the related concern for concentration of resources.

Mitigating measures for the adverse impact of the proposed action will include technical assistance provided by Commission staff for A1, A2 and B category properties that are not eligible for grants and loans. Technical assistance will consist of advice on historic preservation-oriented rehabilitation and on other possible sources of financial assistance.

Transportation

The probable adverse impact will occur in the area of preservation incentives and development economics: grant and loan funds (other than a 10% emergency fund) will not be available to the owners of the A1 and A2 buildings that are not within the four priority areas. This lack of financial assistance and incentives may significantly affect the quality of preservation and rehabilitation

which could not be implemented by other agencies without Commission participation.

Commission actions and commitment of resources are proposed in four areas:

- Trolley system
 - Parking garage development
 - Canal barges
 - Pedestrian related improvements
- The alternatives and probable impacts relating to these transportation projects are summarized below (see NPS/DEIS for additional discussion of impacts).
1. Trolley system - The proposed action involves the investment of \$2,200,000 in Commission resources, in two stages, to assist with the development of an historic surface trolley system that will link important parts of the Park and Preservation District for Park visitors. Capital improvements to be funded by the Commission will include track improvements, electric power systems, maintenance facilities, trolley equipment. The National Park Service will acquire the tracks and will be responsible for on-going operations and maintenance.
- Comprehensive plans for the visitor trolley system were undertaken by transportation consultants under a separate contract with the Commission. Studies of the future trolley system included an evaluation of options and alternatives that are too numerous to discuss in detail here. Generally, these options call for the development of additional trolley lines and the acquisition and rehabilitation of
2. Parking garages - The proposed action involves the

more trolley cars. Although the Commission supports the concept of an extensive trolley system, its limited resources preclude investment beyond the level described in the Preservation Plan.

The proposed action will have beneficial impacts in the areas of historic interpretation and reduction of automobile traffic and air pollution. The trolley system will provide visitors with a unique opportunity to experience Lowell's resources - the mills, canals, and historic landmarks - from a vantage point not offered by the existing system of streets and roads. At the completion of Stage 2, the trolley system will have a capacity of approximately 600 passengers per hour. Most of these passengers will leave their cars at the intercept parking lot, and will board the trolley for a leisurely tour of the Park and parts of the Preservation District. Visitor-related automobile traffic will be substantially reduced. The trolley system will thus serve to mitigate the adverse impact that the Park may have on downtown traffic, air quality and noise.

The trolley system is not expected to have any significant adverse environmental impacts. The No Action alternative would mean that visitors would have to walk or drive to the Boott and Wamalancit Mills. Walking may be difficult for some and thus lessen the Park experience. Parking at locations other than visitor lots will be frustrating for those unfamiliar with the area.

2. Parking garages - The proposed action involves the

Commission and the National Park Service jointly acquiring and constructing a 240-car parking lot (Swamp Locks intercept parking lot) and the Commission contributing \$1,530,000 toward the construction of one or more parking garages in the area of Boott Mill.

The proposed action in relation to the Swamp Locks intercept parking lot will provide for approximately 50% of the total estimated construction cost, and will have significant positive impacts in terms of alleviating downtown traffic that may be adversely affected by visitor cars. The negative aspect of this proposal is the need to acquire and relocate a small auto repair shop located at the southern end of the site. The construction of a major garage at this site was evaluated as an alternative. This alternative was rejected because of anticipated traffic problems at the Lord overpass.

The construction of a 1000-car parking garage at John Street, and a possible 600-car parking garage just west of the Boott Mill may eventually be needed to accomodate both visitors and commuting workers employed in a redeveloped Boott Mill Complex. While these parking garages are considered to be important facilities for the Park and for a revitalized downtown area, the Commission's limited resources preclude a major investment for such facilities. It is expected that the lack of major Commission assistance will not have a significant adverse effect on the implementation of these projects. The City Government is well aware of the need, and has already

taken steps to obtain funding assistance. The Commission's proposed level of assistance (\$1,530,000) will be sufficient to compensate for the loss of surface parking spaces adjacent to the H&H Paper Company. That site is scheduled for development as a passive recreation park.

An alternative for these parking garages that would have necessitated a major Commission investment was considered and rejected because of the many other priorities that the Commission must fund with its limited resources.

3. The Canal Barges - The Commission will assist the National Park Service with the development of the canal tour program by providing up to \$400,000 for the acquisition of barges, to be operated by NPS. Beneficial impacts of this action will include direct assistance to NPS in an important interpretive program, and increased access for visitors to the popular canal trips. No adverse impacts are anticipated. The No Action alternative was considered and rejected as being inappropriate to the Commission's objective of supporting the development of the Park and meeting mandates of the enabling legislation.

4. Pedestrian Improvements - The Commission has assumed that the lead role for various pedestrian system and street improvements will be taken by the City, and secondarily by the National Park Service. The Commission's standards will contribute to the development of historically appropriate street improvements to be funded by other agencies. In addition, the Commission

will fund the construction of a walkway connecting the Swamp Locks parking lot and the NPS Visitor Center. The walkway will provide for easy pedestrian access between these two key points, and will serve as a model for streetscape designs for the entire preservation District.

An alternative involving the investment of significant Commission funds for pedestrian improvements was evaluated and rejected because of limited resources and because of the lead role that the City intends to take for streetscape projects. Commission funds for the model walkway are included in the budget for development of the Swamp Locks parking area.

District-Wide Cultural Programs

The Commission will support a wide variety of cultural programs throughout the preservation District. The reader is referred to the Preservation Plan for details on these various programs. The major program names and approximate 8-year budgets are as follows:

- Festivals, Celebrations and Performances - \$280,000
- Public Exchange Programs - \$200,000
- Guest House Program - \$60,000
- Local Artisans Programs - \$240,000

- Assistance to Interpretive Projects - \$320,000
- Education Programs - \$280,000
- Writing, Research and Publishing Projects - \$48,000

- Work/Study Student Grants - \$104,000

Total Commission resources to be allocated to District-Wide Cultural Programs will thus be \$1,532,000. These programs will be among the Commission's most important undertakings. Although the proposed funds are relatively modest - in the range of \$200,000 per year - the potential benefit of these programs is considerable. The various cultural programs have been designed to benefit a wide variety of people. Acting by and through these programs, the Commission expects to have a beneficial impact on the cultural and ethnic activities that are the essence of Lowell's vitality. In allocating these resources on a project by project basis, the Commission will also take care not to create adverse impacts through possible conflicts with established cultural and educational institutions. The Commission's role is thus seen as one that is both active and yet supportive of existing cultural organizations and energies.

A variety of program options and alternative funding levels were considered during the development of plans for the District-Wide Cultural Programs. These many options do not warrant a detailed discussion at this level of evaluation. Of some importance, however, is the fact that no other agency currently active in Lowell has the staff, funding resources or overall objectives that would provide for a varied cultural program of this kind. Thus, the No Action alternative would mean fewer and possibly no programs of this type available to Lowellians.

The objective of this part of the Preservation Plan is to develop specifics for five priority projects that combine both physical rehabilitation and cultural programs. The five projects will serve as first phase cornerstones for the Preserva-

Site-Specific Projects

The objective of this part of the Preservation Plan is to develop specifics for five priority projects that combine both physical rehabilitation and cultural programs. The five projects will serve as first phase cornerstones for the Preserva-

tion plan, and will provide opportunities and facilities for cultural programs that both preserve and celebrate Lowell's living history.

The specific criteria that were used to select these five key projects, and to evaluate related alternatives were:

1. The projects should be located in the City Center area. Opportunities for concentrated resources and strong visual, cultural and economic impacts will thus be maximized.
2. Projects should be selected that will add significantly to the preservation of the 19th century setting.
3. Physical improvements should be creatively linked with specific cultural programs.

The next several pages describe the five key projects, their alternatives and expected impacts in some detail (see NPS/DEIS for additional information).

1. Gateway Exhibits/Lowell Manufacturing Co.

The Lowell Manufacturing Co. mills - two buildings totaling about 270,000 square feet - were included as one of the ten buildings requiring Commission action as per P.L. 95-290. A description of this project has been provided under site-specific projects: because of the important related cultural programs.

tion center. The remaining 25,000 square feet will be subleased to suitable commercial users. The rest of the complex will be developed by Market Mills Associates for housing. The Commission has also made a grant to the developers for historically appropriate landscaping of the millyard. The Secretary of the Interior approved these Commission actions on January 4, 1980.

Total commitment of Commission funds was \$1,000,000.

The No Action alternative was the only alternative seriously considered. Basically, the Commission was obliged to choose between no action and a set of actions that would be of sufficient magnitude to ensure the feasibility of the entire project.

The primary beneficial impact of the proposed action is, quite simply, the assurance of project feasibility. The commitment of nearly \$1 million of Commission funds means that there will be 230 units of rental housing provided. There will also be substantial, newly rehabilitated space for shops and restaurants, a visitor orientation/information center at a key "gateway" location of the Park, and the landscaped millyard that will provide space for outdoor cultural exhibits as well as for informal gatherings. The entire project, once implemented, will increase the City's tax revenues by \$146,000 annually.

The preferred alternative for this project consists of the Commission obtaining a long-term lease and acquisition agreement for about 42,000 square feet of the 270,000 square foot complex. The National Park Service will lease 17,000 square feet from the Commission for use as a visitor orientation and informa-

to real estate management. In addition, residents and users will generate a new demand for parking.

There are no special beneficial impacts associated with the No Action alternative - other than the related lack of real estate management responsibilities for Commission staff. The primary adverse impact would be the probable demolition of a nationally significant building and the demise of the project.

Mitigating Measures. Arrangements have been made with the City for residents to park in the new parking garage on Market Street. This garage and the Dutton Street lot will help keep other vehicles from further congesting Market Street.

2. Labor Exhibits/Early Residence

The Early Residence on Kirk Street is one of the few remaining pre-Civil War private residences in the center of Lowell. This building is also one of the ten "mandated projects." The building is 8,800 square feet in size, and was constructed ca. 1845 in the late Federal style. The structure has been inconsistently altered during the years, and is at present in a state of disrepair.

The preferred alternative is for acquisition of the property by the Commission, and rehabilitation in cooperation with the Greater Lowell Central Labor Council. Upon completion of the rehabilitation work, the Commission will transfer ownership of the building to the Labor Council. The Labor Council will create ground floor exhibits that describe the labor skills and professions of the Greater Lowell area. Upper floors will be used for meeting rooms and offices. The Commission will commit a total of \$461,000 to

this project, including \$40,000 for the development of about 1,000 square feet of exhibits.

Beneficial impacts of the proposed action include rehabilitation of a nationally significant historic building, support of NPS activities (rehabilitation of the adjacent corporation-constructed mill agent's house), and provision of space for exhibits that will help to tell the story of Lowell's people. No adverse impacts are anticipated.

The No Action alternative was rejected because of the legislative mandate requiring some form of Commission action. Several alternatives were considered for the Commission's role in assisting with exhibits. Alternative A provided for minor technical assistance for exhibit planning, but no direct funds. Alternative B consisted of a \$20,000 grant for exhibit planning and design. Alternative C (the preferred alternative) allocated \$40,000 for the development and installation of a "modest cost" exhibit of about 1,000 square feet. Alternative D called for the investment of \$112,000 for the development and installation of a more ambitious exhibit of about 1,500 square feet.

Basically, Alternatives A and B were rejected because of the clear need for a more active role for the Commission in the development of special exhibits in the renovated Early Residence. Alternative D was rejected because the Greater Lowell Central Labor Council - rather than the Commission - should be the lead agency for the development of the major labor exhibits.

Cultural Center/ H&H Paper Company

The H&H Paper Company building (15,750 square feet) was constructed between 1835 and 1838 as a traditional 3-story brick boarding house block for operatives of the Boott Mills. This structure is the only remaining boarding house of the 8 originally constructed for the Boott Mill. The building has been extensively altered over time, and is currently used as a retail store and warehouse.

The proposed action is acquisition of the building by the Commission and rehabilitation and restoration of the exterior in cooperation with the Park Service. The interior of the building and portions of the adjoining warehouse will be rehabilitated to accommodate a Boarding House restaurant and a Cultural Center. The Cultural Center will be an activity center, open to the public, that will allow both residents and visitors to explore Lowell's history and traditions. The Commission will also fund interior renovations, install 10,000 square feet of interpretive exhibits and provide funds for institutional start-up costs. Total Commission funds to be committed to the project are \$3,450,000.

The primary beneficial impacts will be substantial rehabilitation of an important but severely degraded historic building, the establishment of an interesting restaurant to serve residents and visitors, and the establishment of a multi-faceted Cultural Center that will provide space for a wide range of exhibits and on-going programs. These actions will take maximum advantage of the building's dramatic location overlooking the Boott Mills at the northeastern edge of the National

Park, and will help to tell the "Lowell story" by restoring an example of the classic relationship between living and working place that was typical of early nineteenth century Lowell.

Adverse impacts will occur primarily in the areas of displacement and loss of tax revenues to the City. Relocation compensation to be paid by the Commission should mitigate any financial hardship to the company. The proposed new uses are such that the property will no longer generate tax revenues.

There were two other primary alternatives considered for Commission participation in the Cultural Center/H&H Paper Company project. Alternative A was limited to an investment of about \$10,000 plus technical assistance to encourage the adaptive use of the H&H building in a manner consistent with the Commission's themes. Alternative B was similar to the proposed action - program development grant, interior rehabilitation and contribution for institutional start-up costs - but did not include approximately \$1,000,000 for 10,000 square feet of interpretive exhibits.

Alternative A was rejected as being inadequate for the development of any kind of significant Cultural Center. Alternative B was also seen as inadequate, since there is at present no other agency or institution in Lowell that would be able to develop the major exhibits that will be an essential part of the Cultural Center.

Considerable time and energy were invested during the planning process in the development of concepts for a Cultural Center or Ethnic Center to be located at the nearby Trade School. The principal beneficial

aspects of such an action appeared to be suitable adaptive reuse of a large centrally located building that would soon be vacant. Negative aspects, however, were the creation of yet another activity center and the consequent weakening of the H&H Paper Co. project. Further research also indicated that the Trade School building would be more suitable for rehabilitation for market-rate housing.

4. Boott Mill Park

The Boott Mill Boarding House lot is a parcel of land of almost 0.8 acres, located between the city owned Trade School and the Boott Mill, and adjacent to the H&H Paper Company building. The parcel is the original site of the eight Boott Mill boarding houses. All of these structures, with the exception of the H&H building, have been destroyed. The site is presently used for open air parking, and accommodates about 80 cars.

The proposed action consists of the development of a city park that will serve as an open space focal point complementing the proposed Cultural Center and the proposed redevelopment of the Boott Mill. The property will be acquired by the Commission and transferred to the Park Service. NPS will be responsible for site improvements, maintenance and operations. Schematic design of the park calls for sitting areas and an open-air performance area overlooking the rehabilitated boarding house block. Proposed Commission expenditures for this project are \$417,000.

It is expected that the proposed action will have beneficial impacts. A key open space area will be provided in a densely developed urban setting that has few such spaces. The park will

reinforce the Cultural Center by providing outdoor space for performances, festivals and special displays. The park will also generally reinforce the Boott Mill development project by removing the visually discordant open air parking lot and by providing a vantage point from which the Boott Mill's impressive southern facade - and the historic clock tower - can be viewed.

Parking spaces for 80 cars will be eliminated in an area where parking is already a problem, possibly creating an adverse impact. This impact will eventually be mitigated by the proposed construction of a new 1,000 car parking garage on John Street. Construction of this structure must occur simultaneously with the acquisition and park development so that there will not be a shortfall of spaces.

The No Action alternative was considered for the Boott Mill Park project. The principal positive aspect of this alternative would be the avoidance of eliminating 80 parking spaces. On the negative side, however, no action would mean the continued use of the site in a way that would conflict visually and functionally with the important Cultural Center and Boott Mill projects. There would also be the longer range risk that the site might eventually be purchased by private interests and be used for a new building that might conflict in use and/or style with the two priority historic restoration projects.

Two other alternatives were also considered. Alternative A called for a \$15,000 grant and technical assistance for archaeological research and seasonal programs that would utilize the site without the development of a city park. Alternative B

Limited the Commission's involvement to a \$120,000 allocation for the design and fabrication of a portable stage including light and sound.

Alternative A was rejected as being an inadequate response to the opportunity and need for a significant open space project in this area of the preservation District. After careful consideration of Alternative B, and discussions with the National Park Service, it was determined that a relatively modest Commission investment (\$120,000) would not be enough to guarantee the design and construction of an attractive, multi-purpose city park.

Boott Mill Exhibits/Boott Mill

The Boott Mill (678,000 square feet) is one of the most significant architectural and cultural properties in Lowell. It is also one of the ten mandated projects. This complex is the most intact surviving example of the first phase of Lowell's mill construction. At present, most of the complex is under single ownership. The primary uses are light manufacturing and storage. A portion of the complex, Mill #6, was acquired in 1979 by Wang Laboratories, a growing computer company.

It is the Commission's objective to initiate an adaptive use program that will: (1) preserve and rehabilitate the exterior of the Boott Mill complex, (2) provide for interpretive exhibits and public access to historically important interior spaces, (3) intensify and upgrade industrial uses with the least possible negative impact on existing businesses and jobs.

The proposed action is to gain control of the "first tier" (or buildings visible from French Street) of mill buildings (Mills

#8, #9 and the Picker Building) in order to rehabilitate them, and to enter into an agreement with the Boott Mill Corporation to ensure appropriate private use and development of the remainder of the complex. The Commission will retain about 40,000 square feet of space, of which 20,000 square feet will be leased to the Park Service for development of a series of major exhibits on the process of industrialization, architectural history and the planning of Lowell. Much of the remaining space will be developed for use as a National Museum of Printing and Publishing. Plans have been formulated for the development of an industry-sponsored museum that will portray the evolution of the craft of printing up to and including today's highly automated word processing communications industry.

The planning process for the Boott Mill was a fairly complex undertaking. Many alternative plans and strategies were devised and tested. The final set of alternatives may be summarized as follows:

Alternative A (the proposed action): Limited acquisition, cooperative development with present owners. Budget: \$3,407,000.

Alternative B: Total acquisition, phased development, major limited operation, major re-sale. Budget: \$7,000,000

Alternative C: Total acquisition, major Commission role in development and operation. Budget: \$26,800,000.

The important environmental impacts associated with the alternatives are summarized below.

Alternative A - Beneficial impacts will include preserv-

ation and rehabilitation of the critical "first tier" of mill buildings, provision of space for important historical exhibits, access to parts of the Boott Mills for the public, and some degree of Commission control over the future rehabilitation, use and development of the complex. This alternative is also manageable for the Commission in terms of budget, staff resources, and implementation time.

There will be a number of adverse impacts in the area of economics. Two businesses will be displaced. These businesses employ a total of about 200 people. The two businesses will receive relocation benefits. It is probable that these businesses can relocate to other vacant mill space in Lowell.

Adverse impacts would be primarily economic, legal and organizational. In terms of economics, Alternative B would require a commitment of more than 1/3 of the Commission's entire 10-year budget. It is also possible that many of the 33 businesses currently located in Boott Mill would have to be displaced - along with many of the 1300 workers currently associated with these businesses. Some of the businesses might not have been able to relocate in Lowell.

The legal implications of Alternative B would also be serious. It is probable that total acquisition of Boott Mills would not be possible without eminent domain proceedings. Such an action would almost certainly result in a lawsuit initiated by the current owners against the Commission. A lawsuit could conceivably jeopardize the entire project; it would certainly put a significant strain on the Commission's future planning efforts.

Alternative B would also require substantial commitments of Commission staff at a time for the concentration and management of a large-scale development project. The management demands of this large and complex project could easily go beyond the capacity of the small staff.

the area of historic preservation and Commission control of future use and development of the Boott Mill complex. Total acquisition of the complex by the Commission would clearly provide for significant preservation and restoration actions.

Adverse impacts would be primarily economic, legal and organizational. In terms of economics, Alternative B would require a commitment of more than 1/3 of the Commission's entire 10-year budget. It is also possible that many of the 33 businesses currently located in Boott Mill would have to be displaced - along with many of the 1300 workers currently associated with these businesses. Some of the businesses might not have been able to relocate in Lowell.

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Alternative B would also require substantial commitments of Commission staff at a time for the concentration and management of a large-scale development project. The management demands of this large and complex project could easily go beyond the capacity of the small staff.

Alternative B - Beneficial impacts will be primarily in

Alternative C would have beneficial and adverse impacts similar to Alternative B. In this case, however, the Commission's control would be at the highest possible level. However, demands on the Commission's financial and staff resources would be so high that this alternative would not be feasible.

Mandated Projects

P.L. 95-290 mandates that the Commission undertake programs for the "preservation, restoration, management, development, or maintenance of ten buildings designated A through J." Preservation programs for three of the ten "mandated projects" - Lowell Manufacturing Co., Early Residence and Boott Mill - have already been discussed in the preceding section. This section will review the proposed actions, alternatives, and expected related impacts for the remaining seven projects.

Specific criteria used to shape strategies for these seven projects were:

1. Reinforcement of NPS projects and of the National Park in general.
2. Commission assistance should be limited to those areas of preservation that are not likely to be addressed by private sector actions.

The next few pages provide an environmental analysis of proposed actions for the seven mandated projects.

1. AHEPA Building - This 5,385 square foot building was constructed by the city in 1881 as a school and was given to the American Hellenic Educational Progressive Association (AHEPA) in 1945. At present the building is in

an excellent state of preservation but is in need of maintenance and repair.

The proposed action involves the investment of up to \$40,000 by the Commission for the planning, design, fabrication and installation of an exhibit that would feature products made throughout Greater Lowell, both past and present. Such an exhibit would have a beneficial impact in terms of contributing to the variety of interpretive exhibits that will be a key part of the Park.

Several alternatives were considered, the primary alternative being the acquisition of the AHEPA building by the Commission, exterior rehabilitation and site improvements, and the development of a "Commerce Exhibits Center". This alternative, with a price tag of \$165,000, was rejected as being too costly for a building that is architecturally interesting but not of major significance in Lowell's cultural history.

2. Jordan Marsh Co. Building. (Bon Marche Building) - This building, a complex of about 116,000 square feet built in the late 19th century, is a major architectural and commercial element on Merrimack and Kirk Streets. The building's facades are in good repair. Unfortunately, however, the Merrimack St. facade has been altered: the brick has been painted and the windows have been "painted out".

The proposed action is to provide a facade grant in the amount of \$150,000 for the removal of paint from the Merrimack St. facade and for the rehabilitation of the entrance canopy. Grant

monies will also be allocated for some renovations of the Kirk Street facade. In return for this grant, the Jordan Marsh Co. will accept a preservation restriction on both facades.

The proposed action will serve to restore the building's facades to their original appearance. The building will once again become a visual/historical centerpiece of Merrimack Street. No adverse environmental impacts are anticipated. The preservation restriction will in no way constrain continued use of the building by Jordan Marsh.

3. St. Anne's Church and Rectory - These are the oldest surviving corporation buildings in Lowell. The church and rectory were built in 1824 by the Merrimack Manufacturing Company. Both buildings are in an excellent state of preservation, and are actively used by the congregation.

The Commission's objectives are thus to assist in the maintenance of the buildings and to encourage their continued use as an historic place of worship. If the Commission can legally give grants to a church, the proposed action is to provide a grant in the amount of \$20,000 for exterior masonry repairs and preservation of the church's wonderful stained glass windows.

The proposed grant will promote continued high level maintenance of this historic church. There are no adverse effects anticipated from the proposed action.

4. Welles Block - The Welles Block (16,500 square feet) is an important surviving pre-Civil War commercial struc-

ture. As recently as 1978, the building was in poor repair and suffered from major structural problems. With the assistance of a Commission grant, the building was privately rehabilitated as office space. The building is now in an excellent state of repair; it is leased as temporary offices and a visitor center by the National Park Service.

The restoration and rehabilitation work completed for the Welles Block is in keeping with the Commission's goal of reinforcing Lowell's nineteenth century setting. No further Commission action is needed for this building. The impacts relating to Commission actions have already taken place: i.e. a substantially renovated historic building with a productive and appropriate use.

5. Yorick Club - This 15,000 square foot building was constructed by the Merrimack Manufacturing Company in 1855 as housing for its executives. It has recently been tastefully rehabilitated and reopened as a public restaurant.

The Yorick Club's current use and excellent state of exterior preservation are entirely consistent with the Commission's goals and objectives. No Commission action is necessary at this time. There are no significant impacts associated with this no action alternative.

6. Lowell Institution for Savings - The Institution for Savings was founded in 1829 to provide a savings bank for the early mill workers. The existing 14,000 square foot building was constructed in 1845. At present, the building is occupied by the orig-

inal bank corporation which has recently renovated the first floor facade with the installation of new windows and a brick veneer. With the exception of the inappropriate brick veneer, which covers the original brick, the building is in a good state of preservation.

The Lowell Institution for Saving's current use and good state of preservation are consistent with the Commission's goals. No Commission action is necessary at this time. There are no significant impacts associated with this no action alternative.

7. Lowell Gas Light Company - This 5,000 square foot building was constructed in 1859 as an office building. Although generally well-maintained, the building is in need of some exterior rehabilitation.

The Commission has leased the second floor of the Gas Light Building for its administrative offices. Interior restoration and rehabilitation work has already been completed. A rehabilitation grant in the amount of about \$12,000 is proposed to assist with exterior rehabilitation work.

These Commission actions will have a significant positive impact on this particular historic building, and will generally serve to enhance the historic preservation quality of Middle Street.

8. World Furniture Building & the Martin Building - These two buildings are included in the enabling legislation to be acquired and demolished. Demolition was deemed desirable because the two buildings are constructed over the Pawtucket canal, and com-

pletely block any possible vistas up or down the canal from Central Street.

The proposed action is to acquire the two buildings, assist the present occupants in relocation, demolish the buildings, and provide opportunities for public observation sites overlooking the Hamilton Mills upstream and the lower Pawtucket gatehouse, locks and falls downstream.

The expected beneficial impact of the proposed action would be the opening of vistas along the Pawtucket Canal. The primary adverse impacts will be in the area of economics: the forced relocation of two businesses and the loss of about \$25,000 per year (1980 rate) in property taxes. Every effort will be made to relocate these businesses in other areas of downtown Lowell.

A number of alternatives were discussed, including the possibility of acquisition, partial demolition, and reconstruction so as to provide for some continued building use as well as the desired canal vistas. This alternative was rejected as being too complicated and beyond the Commission's ability to implement.

Section V. Consultation

The Preservation Plan and the Environmental Assessment were prepared in consultation with many individuals and agencies at the local, state and federal level. Both formal and informal review sessions were held over the course of the first year and a half.

To inform residents, businesses and interested individuals in the District of Commission plans and activities, two bulletins were published and mailed to over 2000 people.

Public hearings were held in June 1979 and March 1980. Over one hundred people attended them, including representatives of the following organizations: Lowell City Council, Lowell Division of Planning and Development, Human Services Corporation, Franco-American Centre Committee, Lowell Museum Corporation, Lowell Sun, Merrimack Valley Textile Museum, Lowell Musicians Association, St. Jean Baptist Rectory, Lowell Public Schools, Lowell Opera Corporation, Lowell Historical Commission, Merrimack Regional Theater, Downtown Businessmen's Association, Greater Lowell Indian Cultural Association, Lowell Council on Aging, Lowell Garden Club, and Acre Model Neighborhood Organization.

State and national participants included the Massachusetts Department of Environmental Management, National Parks and Conservation Association, and National Park Service.

The Commission relied extensively on research and analysis previously carried out by the National Park Service in conjunction with the preparation of their General Management Plan and Draft Environmental Impact Statement. The Council on Environmental Quality and the Office of Environmental Project Review, Department of the Interior, were also consulted during the preparation process.

Appendix F.

Amendment to the Environmental Assessment

Prepared by the Lowell
Historic Preservation Commission
September, 1989

For further information contact:
Christina Goetting
Lowell Historic Preservation Commission
222 Merrimack Street, Suite 310
Lowell, Massachusetts 01852
(508) 458-7653



In accordance with the National Environmental Policy Act, 1969, as amended, Section 1508.13, the Lowell Historic Preservation Commission issues the following statement:

FINDING OF NO SIGNIFICANT IMPACT

Based on the Amendment to the Environmental Assessment, the Commission has made a determination that the programs and projects discussed in the Plan will not require further environmental documents. In compliance with the National Environmental Policy Act, the Commission issues a Finding of No Significant Impact for the reasons listed below.

The Commission's reasons are as follows:

1. The trolley extension is a reasonable expansion of the originally proposed transportation system providing an important linkage between canal boats and interpretive sites in the park.
2. Standards for Canalway development have been established to ensure that the historic character and integrity of the canal system are maintained and protected.
3. The actions in the Plan Amendment do not significantly affect public health or safety.
4. While the proposed actions concern unique cultural and historic resources in Lowell, projects in the Plan Amendment preserve these resources rather than damage them.
5. The Commission has included mitigating measures in its proposed actions to reduce adverse impacts.

Other Documents: In addition to the Commission's Amendment to the Environmental Assessment, the Environmental Assessment (1980) which analyzes the impacts of the Preservation Plan of 1980. The National Park Service draft Environmental Impact Statement (May 1980) analyzes the overall impacts from the Lowell National Historical Park and covers all joint projects. This material has been incorporated into the Commission's assessment.

November 3, 1989


Peter J. Aucilla
Executive Director

Lowell Historic Preservation Commission U.S. Department of the Interior
Old City Hall 222 Merrimack Street, Suite 310 Lowell, Massachusetts 01852 (508) 458-7653

Amendment to the Environmental Assessment

In August 1980, the Lowell Historic Preservation Commission prepared an Environmental Assessment to analyze the impacts of the Preservation Plan of 1980 and alternatives not fully addressed in the Environmental Impact Statement prepared by the National Park Service, June 1980. The Commission has reviewed the information presented in the 1980 Environmental Assessment filed with the Preservation Plan of 1980. Based on this review, it was determined with two noted exceptions, that the Preservation Plan Amendment does not propose any new actions which would present new environmental impacts. Therefore, a comprehensive environmental assessment is not required. (For discussion of impacts of actions proposed in the 1980 Preservation Plan, see Environmental Assessment, 1980 and NPS/DEIS.)

The following is an assessment of those actions proposed in the Preservation Plan Amendment not previously addressed in the 1980 Preservation Plan. The intent of this assessment is to identify the newly proposed actions, discuss the reasonable alternatives that were considered and the probable environmental impacts, whether beneficial or adverse, that the proposed actions and the alternatives may be expected to have.

Lower Locks Trolley Extension/Eastern Canal Bridge

The proposed action involves the construction of a new trolley bridge over the Eastern Canal and tracks and overhead lines to bring the trolley system to the Lower Locks Terminus (Map 12). An integrated visitor transportation system of canal boats and trolleys has been a long standing goal of the Preservation Plan. The proposed bridge and track extension is a reasonable expansion of the originally proposed transportation system providing an important linkage between the Boott Mill and Eastern Canal Park sites and the canal boats and interpretive site at the Lower Locks.

The proposed action will have beneficial impacts in enhancing the park's historic interpretive program, facilitating the operation of additional trolleys to meet increased visitation demands, and reduction of visitor related automobile traffic.

The Eastern Canal bridge and trolley extension is not expected to have any significant adverse environmental impacts. Water quality and historic design issues related to the proposed trolley bridge have been addressed in a recently completed design study. The study presents design concepts which includes architectural detailing that will maintain the historic integrity of the area, and structural pier designs which eliminate any impediment to water flow in the canal. The No Action alternative would mean that visitors would have to walk or drive to interpretative programs at the Lower Locks. Walking may be difficult some, thus lessening the park experience. Driving would increase traffic on already congested downtown streets.

Canalway Program

The Canalway Program is a broad concept that encompasses most every aspect of the Commission's agenda for the next six years. The Canalway is a proposed system of paths connecting all segments of the canal system. The primary objectives of the Canalway Program are to preserve, protect, and interpret the historic structures and landscapes that comprise the historic canal system for the purpose of recreational enjoyment, educational enhancement, and cultural expression. The commission has established Standards for Canalway Development to ensure that the historic character and integrity of the canal system are maintained and protected. These standards are included in the Preservation Plan Amendment. A total of \$7,250,000 in Commission resources have been allocated to the Canalway Program.

Commission actions and commitment of resources are proposed in three areas:

- Canal Walkway Development
 - Restoration of Historic Canal Structures
 - Canalway Cultural Development Programs

The alternatives and probable impacts relating to these canalway projects are summarized below:

1. Canal Walkway Development

The proposed action involves the development of a continuous system of walkways connecting all segments of Lowell's 5.6 mile canal system, as well as sections of the Merrimack and Concord Rivers. The Canalway is organized into a downtown inner loop along the Merrimack, Hamilton, Lower Pawtucket, and Eastern Canals and an outer loop along the Western, Upper Pawtucket and Northern Canals. Capital improvements to be funded by the Commission will include, surface paving of walkways, rehabilitation of historic canal railings or installation of new railings, fencing, lighting, grading, landscaping, and canalside furniture.

The proposed action will have beneficial impacts in encouraging greater use of the canals and their banks for recreational, cultural, interpretive, and commercial activity, upgrading the physical appearance of the canal, and improving public access to the canalway. The canal walkway will be integrated into the park transportation system of boats and trolleys connecting all major points of interest along the canals and throughout the park system.

The Canal walkway is not expected to have any significant adverse environmental impact. The No Action alternative would mean that the resource potential of the Canalway as a major urban amenity and interpretive aid may never be realized. There currently is no other agency or local organization with the funds and capacity to undertake such a project on a canalwide scale. Thus, the No Action alternative would mean that any future development of the canalway would likely occur as isolated projects without any unified plan for integrating the system.

2. Restoration of Historic Canal Structures

The proposed action involves the restoration and rehabilitation of numerous canal structures, namely gatehouses and dams. Site specific capital improvement projects to be funded by the Commission may include restoration of:

- Swamp Locks Gatehouse
- Guard Locks Lock House
- Hydraulic Gatehouse on the Upper Pawtucket
- Boot Dam
- Rolling Dam/Boot Penstock Gatehouse
- Massachusetts Wasteway Gatehouse

The proposed action will serve to restore these historic canal structures to their original appearance.

The beneficial impact of the proposed action includes the rehabilitation of historically significant structures, enhancement of visitor tour and interpretative experience along the canal system, and the creation of an attractive canalscape. No adverse impacts are anticipated.

The No Action alternative would mean that these structures which represent significant elements of the Locks and Canals National Historic Landmark District would remain in a state of deterioration. Prolonged neglect may result in the eventual loss of these valuable cultural and historic resources.

3. Canalway Cultural Development Programs

In order to better enhance and interpret the canal system the Commission will support a variety of Canalway cultural, interpretive and recreational programs. The reader is referred to the Preservation Plan Amendment for details on these various programs. The major canalway programs include:

- Public Art along the Canalway
- Historical Markers and Interpretive Signage System
- Folklife Facilities

These programs are designed to tell the story of Lowell and its people using the canalway as the focus and setting for interpretation of Lowell's rich cultural and industrial heritage.

Through the development of these programs, the Commission expects to have a beneficial impact on the cultural, ethnic, and recreational activities that instill in Lowell a unique sense of quality and character. The Commission intends to work closely with the Lowell Office of Cultural Affairs, as well as other local cultural and educational institutions to coordinate its programs and thus, avoid any adverse impacts that may be created through possible conflicts.

There is no other agency currently active in Lowell that has designated the canalways as a focus for cultural activity. Thus, the No Action alternative would mean that fewer and possibly no programs would be developed to enhance and interpret the canal system.

Consultation

The Preservation Plan Amendment and the Amendment to the Environmental Assessment were prepared in consultation with many individuals and agencies at the local, state, and federal level.

A public hearing was held on the Preservation Plan Amendment on June 19, 1989. Approximately 25 people attended including representatives of the following agencies and organizations: Lowell High School, Lowell National Historical Park, Lowell Historical Society, Lowell Office of Cultural Affairs, Congressman Chester Atkins Office, and the Lowell City Council. Public notices regarding the Public Hearing and Public Review Period were published in the *Lowell Sun*. In addition, copies of the Plan Amendment were mailed to over 200 people.

DO-12 APPENDIX 1
ENVIRONMENTAL SCREENING FORM
(REVISED 28 JANUARY 2002)

This form must be attached to all documents sent to the regional director's office for signature. Sections A and B should be filled out by the project initiator (may be coupled with other park project initiation forms). Sections C, D, E, and G are to be completed by the interdisciplinary team members. While you may modify this form to fit your needs, you must ensure that the form includes information detailed below and must have your modifications reviewed and approved by the regional environmental coordinator.

A. PROJECT INFORMATION

Park Name Lowell National Historical Park

Project Number _____

Project Type (Check): Cyclic Cultural Cyclic Repair/Rehab ONPS
 NRPP CRPP FLHP
 Line Item Fee Demo Concession Reimbursable
 Other (specify) GMP Addendum

Project Location Lowell National Historical Park

Project Originator/Coordinator Christina Briggs

Project Title GMP Addendum for Lowell National Historical Park

Contract # NA

Contractor Name NA

Administrative Record Location Lowell National Historical Park, 67 Kirk Street, Lowell

Administrative Record Contact Christina Briggs, 67 Kirk Street, Lowell, MA

B. PROJECT DESCRIPTION/LOCATION *[To begin the statutory compliance file, attach to this form, maps, site visit notes, agency consultation, data, reports, categorical exclusion form (if relevant), or other relevant materials.]*

The Lowell National Historical Park has completed an addendum to its General Management Plan to provide clarification on the role and responsibilities of the Park in the absence of its former sister agency, the Lowell Historic Preservation Commission, and to formally incorporate into the Park's GMP, the Preservation Commission's Preservation Plan and Amendment. Location: Lowell National Historical Park, Lowell, Massachusetts.

Preliminary drawings attached? Yes No

Background info attached? Yes No

Date form initiated July 8, 2002

Anticipated compliance completion date July 8, 2002

Projected advertisement/Day labor start NA

Construction start NA

C. RESOURCE EFFECTS TO CONSIDER (*Tailor the following to meet individual park/unit project needs.*)

Are any measurable ¹ impacts possible on the following physical, natural or cultural resources?	Yes	No	Data Needed to Determine
1. Geological resources – soils, bedrock, streambeds, etc.	X		
2. From geohazards	X		
3. Air quality	X		
4. Soundscapes	X		
5. Water quality or quantity	X		
6. Streamflow characteristics	X		
7. Marine or estuarine resources	X		
8. Floodplains or wetlands	X		
9. Land use, including occupancy, income, values, ownership, type of use	X		
10. Rare or unusual vegetation – old growth timber, riparian, alpine	X		
11. Species of special concern (plant or animal; state or federal listed or proposed for listing) or their habitat	X		
12. Unique ecosystems, biosphere reserves, World Heritage Sites	X		
13. Unique or important wildlife or habitat	X		
14. Unique or important fish or fish habitat	X		
15. Introduce or promote non-native species (plant or animal)	X		
16. Recreation resources, including supply, demand, visitation, activities, etc.	X		
17. Visitor experience, aesthetic resources	X		
18. Cultural resources including cultural landscapes, ethnographic resources	X		
19. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	X		
20. Minority and low income populations, ethnography, size, migration patterns, etc.	X		
21. Energy resources	X		
22. Other agency or tribal land use plans or policies	X		
23. Resource, including energy, conservation potential	X		
24. Urban quality, gateway communities, etc.	X		
25. Long-term management of resources or land/resource productivity	X		
26. Other important environment resources (e.g. geothermal, paleontological resources)?	X		
27.	X		
28.	X		

¹ Measurable impacts are those that the interdisciplinary team determines to be greater than negligible by the analysis process described in DO-12 §2.9 and §4.5(G)(4) to (G)(5).

D. MANDATORY CRITERIA

Mandatory Criteria: If implemented, would the proposal:	Yes	No	Data Needed to Determine
A. Have material adverse effects on public health or safety?	X		
B. Have adverse effects on such unique characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; or ecologically significant or critical areas, including those listed on the National Register of Natural Landmarks?	X		
C. Have highly controversial environmental effects?	X		
D. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	X		
E. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	X		
F. Be directly related to other actions with individually insignificant, but cumulatively significant, environmental effects?	X		
G. Have adverse effects on properties listed or eligible for listing on the National Register of Historic Places?	X		
H. Have adverse effects on species listed or proposed to be listed on the List of Endangered or Threatened Species or have adverse effects on designated Critical Habitat for these species?	X		
I. Require compliance with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act?	X		
J. Threaten to violate a federal, state, local, or tribal law or requirement imposed for the protection of the environment?	X		
K. Involve unresolved conflicts concerning alternative uses of available resources (NEPA sec. 102(2)(E)?	X		
L. Have a disproportionate, significant adverse effect on low-income or minority populations (EO 12898)?	X		
M. Restrict access to and ceremonial use of Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)?	X		
N. Contribute to the introduction, continued existence, or spread of federally listed noxious weeds (Federal Noxious Weed Control Act)?	X		
O. Contribute to the introduction, continued existence, or spread of non-native invasive species or actions that may promote the introduction, growth or expansion of the range of non-native invasive species (EO 13112)?	X		
P. Require a permit from a federal, state, or local agency to proceed, unless the agency from which the permit is required agrees that a CE is appropriate?	X		
Q. Have the potential for significant impact as indicated by a federal, state, or local agency or Indian tribe?	X		
R. Have the potential to be controversial because of disagreement over possible environmental effects?	X		
S. Have the potential to violate the NPS Organic Act by impairing park resources or values?	X		

E. OTHER INFORMATION (*Please answer the following questions/provide requested information.*)

Are personnel preparing this form familiar with the site? Yes No

Did personnel conduct a site visit? Yes No (*If yes, attach meeting notes or additional pages noting when site visit took place, who attended, etc.*)

Is the project in an approved plan such as a General Management Plan or an Implementation Plan with an accompanying environmental document? Yes No

If so, plan name LNHP GMP, Preservation Plan and Preservation Plan Amendment

Is the project still consistent with the approved plan? Yes No (*If no, prepare plan/EA or EIS.*)

Is the environmental document accurate and up-to-date? Yes No (*If no, prepare plan/EA or EIS.*) FONSI ROD (Check) Date approved _____

Are there any interested or affected agencies or parties? Yes No Plan Addendum addresses NPS administrative changes only

Did you make a diligent effort to contact them? Yes No NA

Has consultation with all affected agencies or tribes been completed? Yes No NA
(*If so, attach additional pages detailing the consultation, including the name, the dates, and a summary of comments from other agencies or tribal contacts.*)

Are there any connected, cumulative, or similar actions as part of the proposed action? Yes No
(*If so, attach additional pages detailing the other actions.*)

F. INSTRUCTIONS FOR DETERMINING APPROPRIATE NEPA PATHWAY

Complete the following tasks: conduct a site visit or ensure that staff is familiar with the site's specifics; consult with affected agencies, and/or tribes; and interested public and complete this environmental screening form.

If your action is not described in DO-12 § 3.4 or if you checked yes or identified "data needed to determine" impacts in any block in Section D (Mandatory Criteria), you must prepare an environmental assessment or environmental impact statement.

If you checked no in all blocks in Section C (resource effects to consider) and checked no in all blocks in Section D (Mandatory Criteria) and if the action is described in DO-12 § 3.4, you may proceed to the categorical exclusion form. (Appendix 2 of DO-12 Handbook)

G. INTERDISCIPLINARY TEAM SIGNATORY (All interdisciplinary team members must sign.)

By signing this form, you affirm the following: you have either completed a site visit or are familiar with the specifics of the site; you have consulted with affected agencies and tribes; and you, to the best of your knowledge, have answered the questions posed in the checklist correctly.

Interdisciplinary Team Leader Name	Field of Expertise	Date Signed
<i>Oliver J. Wright</i>	SECTION 106 COORDINATOR, ARCHITECT	7/10/02
Technical Specialists Names	Field of Expertise	Date Signed
<i>James Fennell</i>	HISTORIC ARCHITECT	
<i>John Bruey</i>	COMMUNITY PLANNER	7/10/02

H. SUPERVISORY SIGNATORY

Based on the environmental impact information contained in the statutory compliance file and in this environmental screening form, environmental documentation for the subject project is complete.

Recommended:

Compliance Specialist	Telephone Number	Date
	(617) 223-5141	

Approved:

for Superintendent	Telephone Number	Date
<i>Peter J. Cincella</i> Asst. Supt.	(978) 275-1700	7/18/02

APPENDIX 2

Categorical Exclusion Form

Project: Lowell National Historical Park GMP Addendum

Date:: June , 2002

Describe project, including location (reference the attached Environmental Screening Form (ESF), if appropriate):

The Lowell National Historical Park has completed an addendum to its General Management Plan to provide clarification on the role and responsibilities of the Park in the absence of its former sister agency, the Lowell Historic Preservation Commission, and to formally incorporate into the Park's GMP, the Preservation Commission's Preservation Plan and Amendment. (Environmental Screening Form is attached)

Describe the category used to exclude action from further NEPA analysis and indicate the number of the category (see section 3-4 of DO-12)

The project meets the CE criteria set forth in Section 3-4 (B-1). No new programs are proposed in the addendum to the GMP that were not already contemplated in the Park's GMP, or in the Commission' Preservation Plan and Amendment. The Addendum provides clarification on the new administrative responsibilities of the Park in completing the agenda of the Commission. The programs of the Commission (outlined in the Preservation Plan and Amendment) were always part of the vision of the Park and were identified and discussed in the Park's GMP. The Addendum to the Park's General Management Plan does not have any potential for environmental impact.

Describe any public or agency involvement effort conducted (reference the attached ESF)

The Preservation Plan and Preservation Plan Amendment which are being administratively incorporated in the Park's GMP through the action of the Addendum are both approved Section 106 plans which are in accord with an agreement pursuant to 36 CFR Sec 800 of the Advisory Council on Historic Preservation Regulations. The projects of the Commission outlined in these plans will be carried out by the Lowell National Historical Park in line with the Section 106 compliance that the Commission was responsible for.

On the basis of the environmental impact information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances (i.e., all boxes in the ESF are marked "no") or condition in section 3-6 apply, and the action is fully described in section 3-4 of D-12).

Peter J. Accolla
Park Superintendent or Designee

7/8/02

Date

Asst. Super.
Title

McCoy
NPS Contact Person

Title

67 Merrimack Street Lowell, MA
Address

978-225-1725
Phone Number